STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Bill Johnson, Richard Looker)
MEETING DATE: June 16, 2004

ITEM: 8

SUBJECT: **PROPOSED AMENDMENT TO THE WATER QUALITY CONTROL PLAN (BASIN PLAN) FOR SAN FRANCISCO BAY REGION TO ESTABLISH SAN FRANCISCO BAY MERCURY TOTAL MAXIMUM DAILY LOAD (TMDL) AND IMPLEMENTATION PLAN - HEARING TO RECEIVE TESTIMONY ON PROPOSED AMENDMENTS**

CHRONOLOGY: June 1998 - Staff Report on mercury in the northern reaches of San Francisco Bay
June 2000 - Preliminary Technical Report for San Francisco Bay Mercury TMDL
June 2003 - Final San Francisco Bay Mercury TMDL Project Report

DISCUSSION: This is the first of a two-step hearing process for the Board to consider a Basin Plan amendment to establish a TMDL and an implementation plan for the control of mercury in San Francisco Bay. This first hearing provides an opportunity for the Board to receive testimony on the proposed Basin Plan amendment and the supporting staff report that we have distributed for public comment (Appendix A). We will then compile and prepare responses to all written and oral comments received, and if necessary, revise the proposed Basin Plan amendment and supporting report as appropriate. At a subsequent Board meeting, currently scheduled to be September, the Board will hear and consider action on the revised package.

The proposed TMDL and implementation plan are designed to resolve mercury impairment of all San Francisco Bay segments. Mercury is a persistent, bioaccumulative pollutant. High levels of mercury have been found in the eggs of fish-eating birds and Bay fish, including those humans and wildlife eat. In humans, mercury is a neurotoxin. Mercury exposure is also associated with developmental problems in humans. Because of elevated mercury concentrations in Bay fish, the California Office of Environmental Health Hazard Assessment has issued an interim fish consumption advisory warning individuals to limit their consumption of Bay fish.

Mercury also threatens wildlife. Wildlife that consumes fish and other prey from Bay also consumes mercury. Bird eggs harvested from the shore of the Bay have higher mercury concentrations than eggs from elsewhere. Mercury concentrations in some of these eggs are high enough to account for anomalously high hatch failure rates. This suggests the potential for mercury to threaten rare and endangered wildlife, such as the California least tern.

The text of the proposed Basin Plan amendment is contained in the staff report. The staff report also provides the technical background that is the basis of the TMDL and its implementation plan. It also includes required analyses of alternatives and economic impacts. The proposed amendment would establish the following:

- Numeric targets for mercury concentrations in suspended sediment, fish tissue, and bird eggs that, when met, will protect sport and subsistence fishing (i.e., human health), protect wildlife and rare and endangered species, and attain water quality objectives.
- A total maximum yearly mercury load to San Francisco Bay of 702 kg, on average, which is roughly 60% of the existing load.
- Allocation of the total maximum yearly mercury load among the various mercury sources in the San Francisco Bay Region.
- A plan to implement the TMDL that includes actions to reduce mercury loads to achieve allocations, and actions to reduce methylmercury production.
- A monitoring program that evaluates progress in meeting the established targets, ensures conformity with the allocations, and includes studies to improve technical understanding relevant to the mercury TMDL and implementation plan.
- A plan and schedule for reviewing progress toward meeting targets, implementing proposed actions, and evaluating continued appropriateness and effectiveness of proposed actions.

The first three bullets reflect the technical basis of the TMDL and implementation plan, and the last three collectively reflect an adaptive approach to implementing the TMDL and attaining mercury water quality standards. Adaptive implementation involves taking early action commensurate with available data and information while continuously improving our understanding of the problem and its solutions. Inherent to this approach is commitment to review and revise the TMDL and implementation plan as we gain knowledge, particularly if we discover unanticipated consequences.

Development of this proposed TMDL and implementation plan has been a tremendous effort. We have strived to provide opportunity for stakeholder input. Each of the key milestones listed in the Chronology resulted in comments that were considered in subsequent products. The resulting Basin Plan amendment and staff report has also been subject to a scientific review process and revised accordingly.

There have been and will be continued interests and concerns regarding technical uncertainties and implementation consequences. We are well aware of these, and the proposed TMDL and implementation plan represent a working balance amongst competing interests and concerns. We expect these concerns will be raised at the June hearing, and we are already working with stakeholders to resolve their concerns. Some of the more critical issues concern details of implementation. However, the Basin Plan is not the appropriate mechanism to resolve such issues. They are better addressed via resulting implementation mechanisms such as NPDES permits. Regardless, the proposed Basin Plan Amendment and the resulting implementation mechanisms provide a balance between certainty and flexibility and opportunity for constructive, adaptive changes.

RECOMMEN-DATION: No action is necessary at this time.

Appendices: A – Public Notice and Proposed Basin Plan Amendment and Staff Report for Mercury in San Francisco Bay TMDL